

Kazakhstan's protectionist model of agricultural market development in EAEU conditions

Dina Razakova

Narxoz University, Almaty, Republic of Kazakhstan

E-mail: drazakova@yahoo.com

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Abstract

This research investigated the development of the agricultural market of the Republic of Kazakhstan in EAEU conditions. It was noted that the special importance of the agricultural sector for the stimulation of investment activity is determined, firstly, by the fact that this sector has an inter-industry interconnection with the manufacturing sector, which is why investments in their development produce the greatest cumulative effect while stimulating demand for products of related industries and forming their own investment potential. Secondly, products of these industries are characterized by mass and steady demand on the domestic market. At last, most products of the light and manufacturing industry are competitive on not only the domestic, but also some foreign markets. Forced industrial and innovative processes and the creation of the Eurasian Economic Space necessitate the development of a scenario for the development of competitiveness, which would incorporate the main strategic provisions of economy modernization programs of Belarus, Kazakhstan, and Russia. The practical implications of this research consist in the development and implementation of recommendations regarding the improvement of the investment and innovation support of the agricultural sector in Kazakhstan. The results of this research can be used to develop and implement target programs for the development of the agro-industrial complex in the country.

Key words: Agricultural market, EAEU, Kazakhstan's economy, investments in the agrarian complex.

Introduction

The main problem of the trade policy is the coordination of protectionism and free trade. Developed countries with a highly efficient national economy use a protectionist policy in combination with free stock movement to improve the competitiveness of the national economy and expand the access of their competitive goods to the world market (Subedi, 2016; Maddison, 2013). The peculiarity of the current stage of integration consists in the development of "collective protectionism" of a group of developed countries (for instance, European Union member-states), which is aimed at protecting the interests of the group under global economic pressure (Kang et al., 2014; Murphy & Topel, 2016; Arrow and Kruz, 2013).

For Kazakhstan, a country with a developing economy, the main problems of the export-import policy come from changes in the nature of foreign economic activity due to the accomplishment of the "new decade" strategic objectives, outlined by the president of the country (Nazarbayev, 2010):

- establishment and operation since 2010 of the Customs Union of Belarus, Kazakhstan, and Russia;
- formation of the Eurasian Economic Space of Belarus, Kazakhstan, and Russia in 2010;

- implementation of the State Program of Forced Industrial and Innovative Development for 2010-2014.

A peculiarity of the current economic stage for the country is the combination of two main, but somewhat contradicting strategic goals in the export-import policy. On the one hand, the country should

create a competitive national economy that would integrate into the world economy; on the other hand, the country should develop and protect domestic industrial production, which is competitive only in the CIS.

Reactivation of investment activity in the agro-industrial complex will allow:

- modernizing and re-equipping agricultural companies, creating all necessary conditions for the production of goods that would be competitive on the world market, integrating domestic agricultural production into the world space, and finding a “niche” in global labor distribution (Maddison, 2013; Vershinin et al., 2016; Abdymanapov et al., 2016);

- enhancing commodity exchange between agricultural organizations and industrial companies, thus improving the regional economy (Kang et al., 2014; Castro Vargas et al., 2013; Bierman and Smidt, 2012);

- using production capacities to increase employment, which would relieve social stress in rural areas (Murphy & Topel, 2016; Arrow and Kruz, 2013; Gracheva, 2001).

The main factors that stimulate investment are as follows: research and development; stable return on capital investment (Cooper, 2010); high demand for the products (Maddison, 2013); appropriate logistics (Kang et al., 2014).

Methodology

The information framework of the research included materials provided by the Agency of the Republic of Kazakhstan on Statistics, regional statistics departments, annual reports of agricultural companies, data from the national and regional budgets, programs of regional socioeconomic development, target programs for the development of the agro-industrial complex, etc.

In addition to official statistical materials, plans, and forecasts, the research used data of personal observations and generalizations, as well as the results of the author's scientific and practical activity in the organization of the innovative and investment activity of the agro-industrial complex in Kazakhstan.

The investigation of problems related to the investment and innovative development of the agro-industrial complex used the following methods: economic-statistics, monographic, analogy, abstract-logical, program-target, economic-mathematical, expert assessment, etc.

Data, Analysis, and Results

The efficiency of agricultural product output in Kazakhstan is improving. However, the problem of domestically manufactured food supply remains unsolved.

It is worth noting that agricultural production is underequipped when it comes to highly effective equipment; innovative technologies are not observed as a result. In recent years, the machine and tractor fleet has decreased by almost three times; not more than 2-3% of the fleet are renovated per annum; only about 13-15% of the fleet are in active operation. The percentage of tractors with more than 10 years of service life is 93.1%, that of sowing machinery – 90%, that of combine harvesters – 74%, that of reapers – 83.2%.

The supply of hard-wall rooms that would allow for a comprehensive mechanization is 49% for cattle, 27% for sheep, 35% for pigs, and 50% for the machine and tractor fleet. The wear of production facilities is 40-50%.

At that, the percentage of investment in the innovative development of agricultural production remains one of the lowest in the CIS.

In countries with developed agricultural production, the amount of investment is considerably greater than in Kazakhstan: the percentage of agriculture in the GDP in the USA is 1.8%, while the share of the USA in the GWP is 20.7%; in Russia – 6.5% and 18%, respectively; in Canada – 2.4% and 20.8%, respectively; in China – 15.9% and 36.1%, respectively; in Kazakhstan – 5.6% and 1.7%, respectively.

The structure of resources attracted to the production sphere does not facilitate the improvement of labor effectiveness, since it is dominated by the purchase of government bonds and funding of the financial and banking sector. When broken down by regions, priority is given to the grain-growing northern region, as well as Astana and Almaty (Strategy of Forced Industrial and Innovative Development, 2003).

The special importance of the agrarian sector for the stimulation of investments comes from the fact that this sector has an inter-industry interconnection with the manufacturing sector, which is why investments in their development produce the greatest cumulative effect while stimulating demand for products of related industries and forming their own investment potential. Secondly, products of these industries are characterized by mass and steady demand on the domestic market. Thirdly, most products of the light and manufacturing industry are competitive on not only the domestic, but also some foreign markets (Scientific and technical activity, 2011).

This area of the state structural policy can be realized with a relatively smaller load on the budget, since besides direct investments, it consists in the development of organizational and legal measures that would open this sector to credit resources and private investments, including foreign ones. These investments should be supported through tax and other concessions, so that the forming investment demand is focused first and foremost on domestic equipment manufacturers. It is also necessary to carry out a reasonable protectionist state policy in respect to said sectors.

Stimulation of investment activity is one of the main goals of economic development. Sustainable development of agro-industrial complex branches during the establishment of market relations requires investments and improvement of the supply of all agricultural companies with necessary material and financial resources. The production capital volume is increased via additional investment of material and monetary means that are allocated to the expansion of the production potential in agriculture.

During agricultural production, the active fixed capital is exposed to wear and subsequent replacement, which necessitates its reproduction – ordinary and extended. The source of fixed capital reproduction is capital investment (On Taxes and Other Obligatory Payments to the Budget, 2005).

Capital investments are expenditures on the creation of new fixed capitals of the company and the expansion, reconstruction, and modernization of operating ones. Capital investments are used to restore retired and failed equipment and to purchase additional tools required for extended reproduction (Bierman and Smidt, 2012).

In terms of their role in reproduction, capital investments are divided into production and non-production investments. Production capital investments include expenditures directly related to the production of commodities – purchase of tractors, agricultural machinery, draft and productive livestock, construction of cattle space, water facilities, establishing of orchards and perennial plantations, etc. Non-production capital investments include expenditures on the construction of accommodation, cultural, social, and healthcare facilities. Capital investments turn into operating

fixed capital only after respective facilities are commissioned; in other words, capital investments are essentially future fixed capital (Murphy & Topel, 2016).

One should differentiate between aggregate capital investments and specific capital investments. The amount of all capital investments over a certain period constitutes the aggregate or total capital investments. Specific capital investments are the amount of capital investments per agricultural product unit or hectare of land or per one livestock stall or livestock unit in animal husbandry. During the transition to market relations, aggregate capital investment in agriculture at current prices reduced significantly. The structure of capital investments in agriculture is dominated by expenditures on the construction of production and social facilities and the purchasing of equipment and transportation. The ratio of these expenditures varies considerably, depending on the specialization of the company. For instance, companies that specialize in grain production spend a lot on tractors, combine harvesters, special machinery, and invest in the construction of granaries, thrashing floors, warehouses, etc. Companies that specialize in animal husbandry products spend considerable amounts of capital investments on animal husbandry facilities, productive livestock, and tanks for storing and preparing feed (Civil Code, 1999).

The peculiarity of capital investments in agriculture is that their effect does not manifest immediately, as is the case with current investments, but rather after they are implemented and commissioned. Capital investments are notable for large amounts required to construct production facilities or purchase equipment. The return on capital investments in agriculture is very low; ergo, an economic analysis of their effectiveness is required before making a decision regarding any specific investment.

Sources of capital investment funding

Funding of capital investments in agricultural companies implies the formation of funds for a refund and expansion of fixed capital and other capital expenditures. Capital investment funding characterizes the sources of its formation. The main source of funding of capital investments in agriculture is the company's own funds, which include income from production, depreciation reductions, the part of capital funds of economic stimulation that is used on capital investments, and other means.

During the transition to market relations, capital investments should be formed not only through the companies' own funds, but also through loaned funds, which include bank loans, shareholder investments, and income from stock trading (On Individual Entrepreneurship, 1997).

Bank loans are provided on conditions of maturity, repayment, and interest payment. They are given for a specified term and for specified objects. The loan maturity depends on the objects it is given for. For instance, the maturity of loans for the purchasing of equipment is shorter than that for the construction of animal husbandry facilities (Arrow and Kruz, 2013).

In a market environment, agricultural companies are credited primarily by commercial banks. With that, the bank places the activity of the company under financial control. It is worth noting that the crediting of capital investments by commercial banks has serious drawbacks in the form of high interest rates on loans and provision of loans for relatively short terms. This restricts the development of agriculture and prevents efficient use of resources. The higher the interest rate, the lower the demand for the loan; the higher the interest rate, the higher the supply of the loan (Cooper, 2010).

Capital investments produce a certain effect after they turn into fixed capital. Therefore, it is necessary to take into account their return on investment as a ratio of income from the capital investment to the interest rate of the loan.

The return on investment is compared to the interest rate of the loan. If the return on investment is higher than the interest rate of the loan, the producer should increase the capital investments.

Thus, during the establishment of a mixed economy, capital investments should be formed through the companies' own funds, bank loans, and state investments. This combines various forms of ownership, which involves in the investment process the funds of agricultural companies, the government, commercial organizations, and individual citizens.

The main courses for improving the economic efficiency of capital investments

First, here is some information about the terms "economic effect" and "economic efficiency". The economic effect from the investment of capital is income and profit produced by the investment, which emerge due to the use of the invested capital. In other words, the "effect" is a result of this or that measure taken in agriculture. For instance, the effect from using fertilizers manifests in the form of increased crop yield, while that from using feed – in the form of increased weight gain, milk yield, etc. However, no matter how important the production effect is, its result in and of itself is not enough to characterize human activity, since it does not show the resources (costs) that were required to achieve it. The same effect can be achieved differently, with different resource utilization and vice versa – similar resources can produce different effects. Therefore, it is necessary to compare the achieved effect to the resources (costs) required to achieve it (On State Support of Small Business, 1997).

This implies that alongside one absolute value – the effect, it is necessary to know another absolute value – the utilized or consumed resources, i.e. current operating expenses.

The level of economic efficiency shows the cost of the economic effect. The greater the effect and the less resources required, the higher the economic efficiency of production and vice versa. The economic efficiency shows the ultimate useful effect from the use of production means and direct labor. In agriculture, it implies the maximum production volume per 1 ha of land or 1 livestock unit with the lowest costs of direct and embodied labor (On Limited and Superadded Liability Partnerships, 1998).

Thus, the metrics or assessment of this or that measure taken in agriculture (or other spheres) is economic efficiency. The criterion of economic efficiency of agricultural production is the increase in the output of publicly demanded agricultural products per land unit with simultaneous improvement of its quality and profitability of production (On Production Cooperative, 1995).

The growth of efficiency and capital investments manifests in the increase in gross (commodity) output of agriculture and labor effectiveness, decrease in the cost price of products, and, ultimately, growth of income and profitability. Therefore, it is important to take measures that increase these and other indexes. Agriculture has great opportunities in this respect. Consider some of them (Castro Vargas et al., 2013).

1. Complexity and proportionality of capital investments. For instance, crop growing requires a combination of investments in agricultural equipment, land improvement, and use of chemicals in farming. Animal husbandry requires a reasonable combination of expenditures on building and structure construction, formation of the core herd, and comprehensive mechanization. Capital investments in animal husbandry should be aimed at improving the food supply through land improvement and building feed rooms and compound feed plants. Complex and proportional capital investments require a scientifically grounded plan that involves advanced standards of capital investments as the crucial part of resources allocated to the development of agriculture.

2. Investment structure improvement through increase in the percentage of capital investments aimed at reconstructing the current fixed assets, especially production buildings and

structures. Reconstruction costs pay off 2-2.5 times faster than investments in new construction and extend the period before the fixed assets become obsolete by 10-15 years. Reconstruction reduces specific capital investments, increases building capacity, and creates better labor conditions for employees.

3. Bridging the time gap between the investment and the economic effect, especially in construction. The efficiency of capital investments is often reduced by the lag in fixed asset application. In animal husbandry, this is caused by delayed commissioning of auxiliary facilities (feed centers, water facilities, etc.), production mechanization that lasts several years, and purchase of pedigree cattle.

4. Improvement of agricultural production concentration is an important means of reducing the need for capital investment and increasing its efficiency. According to scientific and practical experience, the cost of one cattle space at dairy farms that have 800 cows is 24% lower than at farms that have 200 cows and 29% lower than at farms that have 1200 cows. Specialized farms are better at using special machinery, production facilities, and expensive equipment more efficiently. Such farms generally have considerable capacity for implementing industrial technologies and comprehensive mechanization and automation of production.

5. Increased economic efficiency of major construction of production and non-production facilities through strict observance of the saving regime, use of local building materials, and advanced construction techniques. Complexity of investments plays a special role. For instance, the construction of animal husbandry complexes solves many problems related to the increase in labor effectiveness. However, a poor food supply reduces the efficiency of capital investments.

Only technical progress, implementation of scientific achievements, and rational organization of production is capable of reducing the cost of fixed assets per product unit. These two economic processes, in the context of increasing fertility, produce a more rapid growth of gross output cost when compared to fixed capital, which is the main factor for the improvement of efficiency of capital investments and fixed capital.

Equipment of agriculture with cutting-edge machinery is a decisive factor in labor efficiency. The implementation of advanced equipment improves the capital per hectare increase, while the cost of labor, especially direct labor, decreases. Output per area unit increases while the cost of one product unit generally decreases to a significantly greater extent than in other areas of capital investments. This is caused by the fact that technological progress reduces the operating cost of fixed capital, while also freeing up a considerable amount of direct labor. The increase in material costs caused by the growth of capital is more than compensated for by saved direct labor. In other words, it is possible to achieve capital investment efficiency if the following conditions are met (Maddison, 2013):

- a) a choice of a capital investment variant that would reduce the operating cost of fixed capital while increasing its volume;
- b) increase in output per land unit or livestock unit, i.e. fixed capital growth is accompanied by a growth of crop yield and animal productivity.

One of the top priorities in the use of capital investments is further increase in the agricultural product processing capacity directly at the location of its production.

The agro-industrial complex should feature a system of incentives and concessions that would make investment attractive, in both agriculture and other areas of the agro-industrial complex. In order to stimulate investment activity, it is necessary to use such levers as incentive taxation, grants for the creation of large infrastructure and nature-protection facilities, financial incentives, non-interest-bearing loans for investors, and preferential conditions of debt and loan settlement at banks.

In general, the essence of capital investment efficiency improvement consists in receiving the highest return at minimum cost. As an important factor of economic growth, capital investments have a significant effect on production efficiency and the profitability of the industry, which is especially important in a market economy (On Licensing, 1995).

The development of investment processes is predetermined by the state policy, which has two aspects: economic and legal. Their interconnection is seen from the fact that the government enshrines its economic decisions in regulatory legal acts: the legislation system predetermines the national legal treatment of investment activity and regulates the principles and mechanisms of relationships of investors, including foreign ones, with government agencies and other participants of economic relations and economic entities. The laws and regulations in effect, which constitute the legal framework of investment activity regulation, can be divided into two groups based on their objectives and scope of regulation: complex laws and regulations, which are universal and establish the basic principles and rules of investor activity regulation, and framework laws and regulations, which are aimed at regulating the legal treatment of investment activity or its specific organizational and legal forms (On Taxes and Other Obligatory Payments to the Budget, 2001).

The following problems should be solved to create an effective investment mechanism in the agricultural sector of the economy: to radically increase the amount of investment in fixed capital from all sources; to ensure consistent decentralization of investment; to increase the share of agricultural companies' own funds in the total amount of capital investments; to enhance the role of depreciation; to allocate government investments to production goals on a competitive basis; to implement a reverse centralization of capital investments; to extend the practice of joint state-commercial funding of projects; to enhance state control over the intended spending of budgetary funds allocated to investments; to extend the practice of insurance and guarantees and government-supported investment projects; to stimulate foreign investments (Kang et al., 2014).

The investment crisis justifies the cooperation of economic entities. This organizational structure gives more opportunities to accumulate financial and credit resources and to concentrate them in the priority growth areas, and creates an investment framework for the active structural policy.

In the short-term perspective, the investment policy should prioritize investments in small and medium-sized business, which does not require considerable state funds. At that, it is important to focus the investment demand created through the state support of small and medium-sized business on domestic manufacturers of special equipment for small business (Subedi, 2016).

Agricultural companies require an increase in investment activity to achieve sustainable economic growth. Experience shows that overcoming the depression in the economy or restoring and improving the economic potential of agriculture is impossible without enhancing the participation of the government and local government agencies in the investment process through direct and indirect regulation.

Discussion

Structural problems in the economy in general and industrial production in particular, as well as the objectives related to the transition to postindustrial development determine the choice of the main areas of the industrial and trade policies of Eurasian Economic Space member-states. According to the strategic plans up to 2020, reforms should commence first in the fuel and energy and food complexes. However, the lack of a national and regional energy and food export-import policy makes it impossible to achieve the goals of forced industrialization, regulate the energy and food market, and create an appropriate infrastructure.

The supply of mineral and food resources to the world market is a crucial aspect of international specialization of Eurasian Economic Space member-states, including Kazakhstan. The industries that form the nature of international specialization in the mid-term perspective are those of the fuel and energy complex. Nevertheless, according to the Program of Forced Industrialization of the Republic of Kazakhstan, the development of “traditional specialization” industries should become a “catalyst of industrial and innovative processes” in the petroleum sector, mining and metallurgy complex, nuclear, and chemical industry, with a subsequent transition of raw material production to higher capacities. Meanwhile, the economic situation in the use of resources of the main exported commodities shows the need to reconsider the resource-export policy.

In the Program of Forced Industrialization of the Republic of Kazakhstan, the priority non-energy production, which is unrelated to the raw material sector and is targeted on export, is the food complex and its constituent industries.

Based on the current economic structure, during the forced industrial and innovative development of the Republic of Kazakhstan, it is necessary to take a differentiated approach to the development of mining and manufacturing and improvement of their competitiveness on the world market in the long-term perspective. During the formation of a new competitive economy, the following can become priority directions of the foreign trade policy (Gracheva, 2001):

- energy export-import policy, aimed at forcing the innovative development of manufacturing in the petroleum and ore mining and smelting complex (through the mining sector) and exporting goods of a higher processing stage;
- food export-import policy, aimed at satisfying the demand of the domestic market and substituting imported food products.

Conclusion

Thus, the main goal of the foreign trade policy at the current stage of regional integration is to develop a scenario for competitiveness development as the basis of the general trade strategy, which incorporates the developmental goals of the Eurasian Economic Space and the global market.

The government can improve the prospects of economic growth through one of two strategies:

- by producing and exporting a greater amount of highly effective goods it already produces;
- be producing and exporting new goods with high export effectiveness.

For Eurasian Economic Space member-states, the main areas of economic development are economic modernization and the formation of a postindustrial economy. The transition to the industrial-innovative model of production is complicated by the peculiarities of the economic model that is based on a low technological wave. Technologically developed countries find it easier to switch to the production of new goods, while less developed raw-material-based economies find it easier to develop the export of products that are the closest to the current export basket, which is based on fuel and raw materials.

Changes in the economic structure are a precondition for overcoming the main negative trends:

- faster growth of the mining industry when compared to the manufacturing industry, while domestic producers mostly target the domestic market;
- faster growth of import when compared to the dynamics of industrial production, with the exception of the crisis period.

Forced industrial and innovative processes and the creation of the Eurasian Economic Space necessitate the development of a scenario for the development of competitiveness, which would incorporate the main strategic provisions of economy modernization programs of Belarus, Kazakhstan, and Russia. Changes in the economic structure are a precondition for overcoming the main negative trends, mainly in the fuel and energy and food complexes. However, as mentioned above, the lack of a national and regional energy and food export-import policy makes it impossible to achieve the goals of forced industrialization and regulate the energy and food markets of Eurasian Economic Space member-states.

References

- Abdymanapov, S.A., Toxanova, A.N., Galiyeva, A.H. (2016). Government Support of Innovative Business in the Republic of Kazakhstan. *IEJME-Mathematics Education*. 11(5):1033-1049
- Arrow, K.J. & Kruz, M. (2013). *Public investment, the rate of return, and optimal fiscal policy*. Routledge. 1.
- Bierman, Jr H. & Smidt, S. (2012). *The capital budgeting decision: economic analysis of investment projects*. Routledge.
- Castro Vargas, R.E. et al. (2013). Trends and impacts of foreign investment in developing country agriculture: evidence from case studies. *FAO, Roma (Italia)*. 338.13(794).
- Civil Code of the Republic of Kazakhstan dated July 1, 1999 No. 409-1 ZRK (Special Part)
- Code of the Republic of Kazakhstan “On Taxes and Other Obligatory Payments to the Budget” dated June 12, 2001 No. 209-II (Tax Code) (amended on January 1, 2005).
- Code of the Republic of Kazakhstan “On Taxes and Other Obligatory Payments to the Budget” dated 12.06.2001.
- Cooper, G. (2010). *The Origin of Financial Crises: Central Banks, Credit Bubbles, and the Efficient Market Fallacy*. Saint Petersburg: Best Business Books. 210.
- Gracheva, M.V. (2001). *Innovative entrepreneurship, its risks and security* (Vol. 8).
- Kang, W., Lee, K. & Ratti, R.A. (2014). Economic policy uncertainty and firm-level investment. *Journal of Macroeconomics*, 39:42-53.
- Law of the Republic of Kazakhstan “On Individual Entrepreneurship” dated 19.06.1997.
- Law of the Republic of Kazakhstan “On Licensing” dated 17.04.1995.
- Law of the Republic of Kazakhstan “On Limited and Superadded Liability Partnerships” dated 22.04.1998.
- Law of the Republic of Kazakhstan “On State Support of Small Business” dated 19.06.1997.
- Legislative Decree of the President of the Republic of Kazakhstan “On Production Cooperative” dated 04.10.1995.
- Maddison, A. (2013). *Economic progress and policy in developing countries*. Routledge.
- Murphy, K.M. & Topel, R.H. (2016). *Human capital investment, inequality and economic growth*. National Bureau of Economic Research. w21841.
- Nazarbayev, N. (2010). *A new decade – a new economic lift – new opportunities for Kazakhstan*. Message of the President of the Republic of Kazakhstan to the people of Kazakhstan. Astana.
- Scientific and technical activity in the Republic of Kazakhstan in 2010. Astana. 2011. 104.
- Strategy of Forced Industrial and Innovative Development of the Republic of Kazakhstan for 2003-2015. Astana. 2003. 217 p.
- Subedi, S.P. (2016). *International investment law: reconciling policy and principle*. Bloomsbury Publishing.

Vershinin, V.V., Murasheva, A.A., Shirokova, V.A. et al. (2016). The Solutions of the Agricultural Land Use Monitoring Problems. International Journal of Environmental and Science Education, 11(12):5058-5069